The Journal of Infectious Diseases

Volume 167 • Number 1 *January 1993*

Agency Report

1 From the National Institute of Allergy and Infectious Diseases. Summary of the 27th United States–Japan Joint Conference on Cholera and Related Diarrheal Diseases
Dale R. Spriggs and Richard L. Guerrant

Major Articles

7 Brain Regional Distribution of Prion Protein PrP27-30 in Mice Stereotaxically Microinjected with Different Strains of Scrapie
Patrizia Casaccia-Bonnefil, Richard J. Kascsak, Regina Fersko, Sharon Callahan, and Richard I. Carp

13 Incidence of BK Virus and JC Virus Viruria in Human Immunodeficiency Virus–Infected and –Uninfected Subjects
Rhea-Beth Markowitz, Harry C. Thompson, Jane F. Mueller, Jeffrey A. Cohen, and William S. Dynan

21 2′,3′-Didehydro-3′-deoxythymidine (d4T) in Patients with AIDS or AIDS-Related Complex: A Phase I Trial
Marcia J. Browne, Kenneth H. Mayer, Stephanie B. D. Chafee, Michael N. Dudley, Marshall R. Posner, Seth M. Steinberg, Kathleen K. Graham, Sandra M. Geletko, Stephen H. Zinner, Sandra L. Denman, Lisa M. Dunkle, Sanjeev Kaul, Colin McLaren, Gail Skowron, Nicola M. Kouttab, Theresa A. Kennedy, Alan B. Weitberg, and Gregory A. Curt

30 Effect of Didanosine on Human Immunodeficiency Virus Viremia and Antigenemia in Patients with Advanced Disease: Correlation with Clinical Response
David H. Shepp and Amar Ashraf

36 High Socioeconomic Status Is a Risk Factor for Human Immunodeficiency Virus Type 1 (HIV-1) Infection but Not for Sexually Transmitted Diseases in Women in Malawi: Implications for HIV-1 Control
Gina A. Dallabetta, Paolo G. Miotti, John D. Chiphangwi, Alfred J. Saah, George Liomba, Nancy Odaka, Francis Sungani, and Donald R. Hoover

43 Influence of Tuberculosis on Human Immunodeficiency Virus (HIV-1): Enhanced Cytokine Expression and Elevated β_2-Microglobulin in HIV-1–Associated Tuberculosis
Robert S. Wallis, Michael Vjecha, Manijeh Amir-Tahmasseb, Alphonse Okwera, Fred Byekwaso, Sam Nyole, Sam Kabengera, Roy D. Mugerwa, and Jerrold J. Ellner

49 *Streptococcus pneumoniae* Colonization, Bacteremia, and Immune Response among Persons with Human Immunodeficiency Virus Infection
Edward N. Janoff, James O'Brien, Patricia Thompson, Josephine Ehret, Gordon Meiklejohn, Gordon Duvall, and John M. Douglas, Jr.

57 Heterosexual Transmission of Human T Cell Leukemia/Lymphoma Virus Type I among Married Couples in Southwestern Japan: An Initial Report from the Miyazaki Cohort Study
Sherri O. Stuver, Nobuyoshi Tachibana, Akihiko Okayama, Shigemasa Shioiri, Yoshizo Tsunetoshi, Kazunori Tsuda, and Nancy E. Mueller

66 Comparison of Risk Factors for Hepatitis C and Hepatitis B Virus Infection in Homosexual Men
Dennis H. Osmond, Edwin Charlebois, Haynes W. Sheppard, Kim Page, Warren Winkelstein, Andrew R. Moss, and Arthur Reingold

72 Virus-Specific Antibody Responses in Mothers and Their Newborn Infants with Asymptomatic Congenital Cytomegalovirus Infections
Suresh B. Boppana, Robert F. Pass, and William J. Britt

78 Investigation of the Pathogenesis of Varicella-Zoster Virus Infection in Guinea Pigs by Using Polymerase Chain Reaction
Philip W. Lowry, Camille Sabella, Celine M. Koropchak, Brandi N. Watson, Helen M. Thackray, Gina M. Abruzzi, and Ann M. Arvin

84 Oral Immunization with Influenza Virus in Biodegradable Microspheres
Zina Moldoveanu, Miroslav Novak, Wen-Qiang Huang, Richard M. Gilley, Jay K. Staas, Dennis Schafer, Richard W. Compans, and Jiri Mestecky

91 Comparison of the Opsonic Activity of Human Surfactant Protein A for *Staphylococcus aureus* and *Streptococcus pneumoniae* with Rabbit and Human Macrophages
Tessie B. McNeely and J. Donald Coonrod

98 Efficacy of Antibiotic-Coated Catheters in Preventing Subcutaneous *Staphylococcus aureus* Infection in Rabbits
Robert J. Sherertz, William A. Carruth, A. A. Hampton, M. Parke Byron, and Donald D. Solomon

107 Role of Egg Consumption in Sporadic *Salmonella enteritidis* and *Salmonella typhimurium* Infections in Minnesota
Craig W. Hedberg, Michael J. David, Karen E. White, Kristine L. MacDonald, and Michael T. Osterholm

112 The Efficacy of Combination Immunotherapy in Experimental *Pseudomonas* Sepsis
A. S. Cross, S. M. Opal, J. E. Palardy, M. W. Bodmer, and J. C. Sadoff

119 Protective Activity of Anti–Exotoxin A Monoclonal Antibody against Mice Infected with Toxin-Producing *Pseudomonas aeruginosa*
Tsuneo Kohzuki, Yoko Eguchi, Masuhiro Kato, Kenji Irie, Hiroshi Ohtsuka, Atsuko Higuchi, and Hiroshi Noguchi

126 Efficacy of Anti-Endotoxin Monoclonal Antibody E5 Alone or in Combination with Ciprofloxacin in Neutropenic Rats with *Pseudomonas* Sepsis
Rodrigo L. C. Romulo, John E. Palardy, and Steven M. Opal

131 Nontoxic Forms of Lipopolysaccharides, Poorly Cleared In Vivo, Are Present in Variable Amounts in Phenol-Extracted Endotoxins
Richard Chaby, Thierry Pedron, and Robert Girard

141 Reversal of Dopamine-Refractory Septic Shock by Diethyldithiocarbamate, an Inhibitor of Endothelium-Derived Relaxing Factor
Cynthia W. Broner, Jerry L. Shenep, Dennis C. Stokes, Diane Fairclough, William K. Hildner, Stephanie A. Storgion, and Jerold E. Rehg

148 Evaluation of Molecular Methodologies and Rabbit Infectivity Testing for the Diagnosis of Congenital Syphilis and Neonatal Central Nervous System Invasion by *Treponema pallidum*
Pablo J. Sánchez, George D. Wendel, Jr., Emmanuel Grimprel, Martin Goldberg, Mary Hall, Orlando Arencibia-Mireles, Justin D. Radolf, and Michael V. Norgard

158 Characterization of the Borreliacidal Antibody Response to *Borrelia burgdorferi* in Humans: A Serodiagnostic Test
Steven M. Callister, Ronald F. Schell, Kay L. Case, Steven D. Lovrich, and Stephen P. Day

165 In Vitro Inhibition of *Borrelia burgdorferi* Growth by Antibodies
Ariadna Šadžiene, Patricia A. Thompson, and Alan G. Barbour

173 Incidence of and Significant Risk Factors for Aminoglycoside-Associated Nephrotoxicity in Patients Dosed by Using Individualized Pharmacokinetic Monitoring
Joseph S. Bertino, Jr., Leigh Ann Booker, Patrick A. Franck, Paul L. Jenkins, Kevin R. Franck, and Anne N. Nafziger

180 Clinical and Laboratory Markers of Hypersensitivity to Trimethoprim-Sulfamethoxazole in Patients with *Pneumocystis carinii* Pneumonia and AIDS
Andrew Carr, Cheryl Swanson, Ronald Penny, and David A. Cooper

186 Regulation of Cryptococcal Capsular Polysaccharide by Iron
Shahe E. Vartivarian, Elias J. Anaissie, Richard E. Cowart, Helen A. Sprigg, Mary J. Tingler, and Eric S. Jacobson

Concise Communications

191 Immunogenicity and Safety of Respiratory Syncytial Virus Subunit Vaccine in Seropositive Children 18–36 Months Old
D. A. Tristram, R. C. Welliver, C. K. Mohar, D. A. Hogerman, S. W. Hildreth, and P. Paradiso

195 Immune Responses to Varicella Zoster Virus Infections in Healthy Children
Harley A. Rotbart, Myron J. Levin, and Anthony R. Hayward

199 Molecular Epidemiology of Type 1 Polioviruses Isolated in Israel and Defined by Restriction Fragment Length Polymorphism Assay
Ami Vonsover, Rachel Handsher, Mina Neuman, Sophie Guillot, Jean Balanant, Hagit Rudich, Ella Mendelson, Tiberius Swartz, and Radu Crainic

203 Effect of a Hepatitis B Vaccination Program on the Prevalence of Hepatitis B Virus Infection
Francis J. Mahoney, Bradley A. Woodruff, John J. Erben, Patrick J. Coleman, Edgar C. Reid, Gary C. Schatz, and Mark A. Kane

207 Diagnosis of Rabies by Polymerase Chain Reaction with Nested Primers
Nuanthip Kamolvarin, Thaweesak Tirawatnpong, Ratree Rattanasiwamoke, Suranan Tirawatnpong, Taweeporn Panpanich, and Thiravat Hemachudha

210 Infectious Decay of Human Immunodeficiency Virus Type 1 in Plasma
Tarsem Moudgil and Eric S. Daar

213 Quantification of Human Immunodeficiency Virus Type 1 tat mRNA as a Marker for Assessing the Efficacy of Antiretroviral Therapy
Manohar R. Furtado, Robert Murphy, and Steven M. Wolinsky

217 Intestinal Microsporidiosis in Human Immunodeficiency Virus–Infected Patients with Chronic Unexplained Diarrhea: Prevalence and Clinical and Biologic Features
Jean-Michel Molina, Claudine Sarfati, Bernadette Beauvais, Marc Lémann, Agnès Lesourd, Françoise Ferchal, Isabelle Casin, Philippe Lagrange, Robert Modigliani, Francis Derouin, and Jacques Modaï

221 Variable Region–Identical Monoclonal Antibodies of Different IgG Subclass Directed to *Pseudomonas aeruginosa* Lipopolysaccharide O-Specific Side Chain Function Differently
John R. Schreiber, Laurence J. N. Cooper, Scott Diehn, Paul A. Dahlhauser, Michael F. Tosi, Debbie D. Glass, Montesa Patawaran, and Neil S. Greenspan

226 *Pseudomonas aeruginosa* Colonization of the Gastrointestinal Tract in Patients with Cystic Fibrosis
David P. Speert, Maureen E. Campbell, A. George F. Davidson, and Lawrence T. K. Wong

230 Serology and Carriage of *Pseudomonas pseudomallei:* A Prospective Study in 1000 Hospitalized Children in Northeast Thailand
Panida Kanaphun, Nittaya Thirawattanasuk, Yupin Suputtamongkol, Pimjai Naigowit, David A. B. Dance, Michael D. Smith, and Nicholas J. White

233 Chemotactic Activity of Urethral Secretions in Men with Urethritis and the Effect of Treatment
David A. Lomas, Dan Natin, Robert A. Stockley, and Mohsen Shahmanesh

237 Cervical Lymphadenitis in a Child Caused by a Previously Unknown Mycobacterium
Walter H. Haas, Philip Kirschner, Stefan Ziesing, Hans J. Bremer, and Erik C. Böttger

240 Antibiotic-Induced Bacterial Killing Stimulates Tumor Necrosis Factor-α Release in Whole Blood
Moshe Arditi, William Kabat, and Ram Yogev

244 Interleukin-1 Pretreatment Protects against Endotoxin-Induced Hypotension in Rabbits: Association with Decreased Tumor Necrosis Factor Levels
Elliot Kaplan, Charles A. Dinarello, Go Wakabayashi, John F. Burke, Raymond S. Connolly, and Jeffrey A. Gelfand

247 Diagnosis of Pathogenic *Entamoeba histolytica* Infection Using a Stool ELISA Based on Monoclonal Antibodies to the Galactose-Specific Adhesin
Rashidul Haque, Kendra Kress, Sheila Wood, Terry F. H. G. Jackson, David Lyerly, Tracy Wilkins, and William A. Petri, Jr.

250 Foodborne Giardiasis in a Corporate Office Setting
Eric D. Mintz, Margie Hudson-Wragg, Patricia Mshar, Matthew L. Cartter, and James L. Hadler

Correspondence

254 Varicella in Pregnancy, the Fetus, and the Newborn: Problems in Management
Mark R. Wallace and Dennis G. Hooper

254 Inconclusive Hepatitis C Virus Antibody Results in African Sera
Kenneth C. Hyams, F. A. Okoth, P. M. Tukei, David S. Vallari, John C. Morrill, Gary Long, Jaya Bansal, and Niel Constantine

256 **Notice**

IDSA Guidelines for Ethical Conduct

Instructions for Authors

Volume 167 • Number 2 *February 1993*

Major Articles

257 Epidemiology of Cercopithecine Herpesvirus 1 (B Virus) Infection and Shedding in a Large Breeding Cohort of Rhesus Macaques
Benjamin J. Weigler, David W. Hird, Julia K. Hilliard, Nicholas W. Lerche, Jeffrey A. Roberts, and Linda M. Scott

264 Acute Murine Cytomegalovirus Infection Induces Lethal Hepatitis
John D. Shanley, Laureen Biczak, and Stephen J. Forman

270 Circulating Cytomegalovirus (CMV)-Infected Endothelial Cells in Patients with an Active CMV Infection
Annemarie Grefte, Marijke van der Giessen, Willem van Son, and T. Hauw The

278 Ganciclovir Treatment of Cytomegalovirus Colitis in AIDS: A Randomized, Double-Blind, Placebo-Controlled Multicenter Study
Douglas T. Dieterich, Donald P. Kotler, David F. Busch, Clyde Crumpacker, Charles Du Mond, Bernadette Dearmand, and William Buhles

283 Sinusitis and Atopy in Human Immunodeficiency Virus Infection
Catherine Butkus Small, Alan Kaufman, Melina Armenaka, and David L. Rosenstreich

291 Efficacy of Low Doses of the Polyethylene Glycol Derivative of Interleukin-2 in Modulating the Immune Response of Patients with Human Immunodeficiency Virus Type 1 Infection
Hedy Teppler, Gilla Kaplan, Kendall Smith, Paul Cameron, Antonia Montana, Peter Meyn, and Zanvil Cohn

299 Relationship of Hepatitis B Virus Infection to Human Immunodeficiency Virus Type 1 Infection
Shiing Jer Twu, Roger Detels, Kenrad Nelson, Barbara R. Visscher, Richard Kaslow, John Palenicek, and John Phair

305 Trivalent Attenuated Cold-Adapted Influenza Virus Vaccine: Reduced Viral Shedding and Serum Antibody Responses in Susceptible Adults
Wendy A. Keitel, Robert B. Couch, John M. Quarles, Thomas R. Cate, Barbara Baxter, and Hunein F. Maassab

312 Adhesion of *Staphylococcus aureus* to Surface-Bound Platelets: Role of Fibrinogen/Fibrin and Platelet Integrins
Mathias Herrmann, Quintin J. Lai, Ralph M. Albrecht, Deane F. Mosher, and Richard A. Proctor

323 Methicillin-Sensitive and -Resistant Homologues of *Staphylococcus aureus* Occur Together among Clinical Isolates
Barbara Inglis, Wafa El-Adhami, and Peter R. Stewart

329 *Staphylococcus epidermidis* Adhesion to Hydrophobic Biomedical Polymer Is Mediated by Platelets
I-wen Wang, James M. Anderson, and Roger E. Marchant

337 Geographic and Temporal Distribution and Molecular Characterization of Two Highly Pathogenic Clones of *Streptococcus pyogenes* Expressing Allelic Variants of Pyrogenic Exotoxin A (Scarlet Fever Toxin)
James M. Musser, Vivek Kapur, Sagarika Kanjilal, Uma Shah, Daniel M. Musher, Neil L. Barg, Kenneth H. Johnston, Patrick M. Schlievert, Jorgen Henrichsen, Dieter Gerlach, Robert M. Rakita, Asha Tanna, Barry D. Cookson, and Jay C. Huang

347 Pneumococcal Capsular Polysaccharide–Meningococcal Outer Membrane Protein Complex Conjugate Vaccines: Immunogenicity and Efficacy in Experimental Pneumococcal Otitis Media
G. Scott Giebink, Markku Koskela, Philip P. Vella, Michelle Harris, and Chap T. Le

356 Genes Involved in *Haemophilus influenzae* Type b Capsule Expression Are Frequently Amplified
Paul G. Corn, Joanna Anders, Aino K. Takala, Helena Käyhty, and Susan K. Hoiseth

365 Anti–Capsular Polysaccharide Antibodies Reduce Nasopharyngeal Colonization by *Haemophilus influenzae* Type b in Infant Rats
Maija Kauppi, Leena Saarinen, and Helena Käyhty

372 Pathogenesis of *Campylobacter fetus* Infections: Critical Role of High-Molecular-Weight S-Layer Proteins in Virulence
Martin J. Blaser and Zhiheng Pei

378 Therapeutic Trial of Lipid X in a Canine Model of Septic Shock
Robert L. Danner, Peter Q. Eichacker, Martin E. Doerfler, William D. Hoffman, Joseph M. Reilly, James Wilson, Thomas J. MacVittie, Peter Stuetz, Joseph E. Parrillo, and Charles Natanson

385 Multiclonal Synovial T Cell Response to *Yersinia enterocolitica* in Reactive Arthritis: The *Yersinia* 61-kDa Heat-Shock Protein Is Not the Major Target Antigen
Peter Probst, Elisabeth Hermann, Karl-Hermann Meyer zum Büschenfelde, and Bernhard Fleischer

392 Western Blotting in the Serodiagnosis of Lyme Disease
Frank Dressler, Jennifer A. Whalen, Bruce N. Reinhardt, and Allen C. Steere

401 Combined Multidrug and *Mycobacterium w* Vaccine Therapy in Patients with Multibacillary Leprosy
S. Ahmed Zaheer, Rama Mukherjee, Beena Ramkumar, Radhey S. Misra, Amar K. Sharma, Hemant K. Kar, Harvinder Kaur, Sreekumaran Nair, Ashok Mukherjee, and Gursaran P. Talwar

411 Correlates of Leishmania-Specific Immunity in the Clinical Spectrum of Infection with *Leishmania chagasi*
Bettie J. Holaday, Margarida Maria de Lima Pompeu, Thomas Evans, Deborah Nunes de Melo Braga, Maria Jania Texeira, Anastacio de Queiroz Sousa, Michael D. Sadick, Antonio Wilson Vasconcelos, John S. Abrams, Richard D. Pearson, and Richard M. Locksley

418 Parasitism of Epidermal Langerhans Cells in Experimental Cutaneous Leishmaniasis with *Leishmania major*
Christine Blank, Harald Fuchs, Klemens Rappersberger, Martin Röllinghoff, and Heidrun Moll

426 Antibody Responses of Visceral Leishmaniasis Patients to gp63, a Major Surface Glycoprotein of *Leishmania* Species
Wayne G. Shreffler, James M. Burns, Jr., Roberto Badaró, Hashim W. Ghalib, Linda L. Button, W. Robert McMaster, and Steven G. Reed

431 Characterization of *Giardia duodenalis* Isolates from a Waterborne Outbreak
Judith L. Isaac-Renton, Carol Cordeiro, Konstantine Sarafis, and Homayoon Shahriari

Concise Communications

441 Breast-Feeding during Primary Maternal Human Immunodeficiency Virus Infection and Risk of Transmission from Mother to Infant
P. Palasanthiran, J. B. Ziegler, G. J. Stewart, M. Stuckey, J. A. Armstrong, D. A. Cooper, R. Penny, and J. Gold

445 Zidovudine-Resistant Human Immunodeficiency Virus Type 1 Genomes Detected in Plasma Distinct from Viral Genomes in Peripheral Blood Mononuclear Cells
Marilyn S. Smith, Karen L. Koerber, and Joseph S. Pagano

448 Effect of Sulbactam on Infections Caused by Imipenem-Resistant *Acinetobacter calcoaceticus* Biotype *anitratus*
Carl Urban, Eddie Go, Noriel Mariano, Barbara J. Berger, Isaia Avraham, David Rubin, and James J. Rahal

451 A Massive Outbreak of Type E Botulism Associated with Traditional Salted Fish in Cairo
J. Todd Weber, Richard G. Hibbs, Jr., Ahmed Darwish, Ban Mishu, Andrew L. Corwin, Magda Rakha, Charles L. Hatheway, Said El Sharkawy, Sobhi Abd El-Rahim, Mohammed Fathi Sheba Al-Hamd, James E. Sarn, Paul A. Blake, and Robert V. Tauxe

455 Detection of Toxigenic *Clostridium difficile* in Stool Specimens by the Polymerase Chain Reaction
Naoki Kato, Chin-Yih Ou, Haru Kato, Suzette L. Bartley, Chi-Chen Luo, George E. Killgore, and Kazue Ueno

458 Detection of Shigellae and Enteroinvasive *Escherichia coli* by Amplification of the Invasion Plasmid Antigen H DNA Sequence in Patients with Dysentery
Orntipa Sethabutr, Malabi Venkatesan, Gerald S. Murphy, Boonchuey Eampokalap, Charles W. Hoge, and Peter Echeverria

461 Endotoxin and Tumor Necrosis Factor-α–Induced Interleukin-8 Release in Humans
Sander J. H. van Deventer, Margreet Hart, Tom van der Poll, C. Erik Hack, and Lucien A. Aarden

464 The Biologic Activities of Peptidoglycan in Experimental *Haemophilus influenzae* Meningitis
Margaret Burroughs, Sudha Prasad, Carmen Cabellos, Paul M. Mendelman, and Elaine Tuomanen

469 Ceftriaxone No Longer Predictably Cures Chancroid in Kenya
M. Tyndall, M. Malisa, F. A. Plummer, J. Ombetti, J. O. Ndinya-Achola, and A. R. Ronald

471 Interleukin-8 in Serum and Cerebrospinal Fluid from Patients with Meningococcal Disease
Alfred Halstensen, Miroslav Ceska, Petter Brandtzaeg, Heinz Redl, Are Naess, and Anders Waage

475 Effect of the (α2→8)-Linked Polysialic Acid Capsule on Adherence of *Neisseria meningitidis* to Human Mucosal Cells
David S. Stephens, Patricia A. Spellman, and John S. Swartley

479 *Vibrio* Infections on the Gulf Coast: Results of First Year of Regional Surveillance
William C. Levine, Patricia M. Griffin, and the Gulf Coast Vibrio Working Group

483 Efficacy of Acellular Pertussis Vaccine in Young Infants
T. Aoyama, T. Iwata, H. Iwai, Y. Murase, T. Saito, and T. Akamatsu

487 A Prospective Study of the Catheter Hub as the Portal of Entry for Microorganisms Causing Catheter-Related Sepsis in Neonates
Mark B. Salzman, Henry D. Isenberg, Judith F. Shapiro, Philip J. Lipsitz, and Lorry G. Rubin

490 DNA Restriction Fragment Analysis to Define an Extended Cluster of Tuberculosis in Homeless Men and Their Associates
Brian Dwyer, Kathy Jackson, Kerry Raios, Aina Sievers, Eleanor Wilshire, and Bruce Ross

494 The Activity of Atovaquone (566C80) in Murine Toxoplasmosis Is Markedly Augmented when Used in Combination with Pyrimethamine or Sulfadiazine
Fausto G. Araujo, Teri Lin, and Jack S. Remington

Correspondence

498 Cell-Mediated Immune Response to Human Immunodeficiency Virus in Homosexual Men
Annamari Ranki

498 Intravenous Immune Globulin for Passive Tetanus Prophylaxis
Thomas P. Bleck

499 Possible Association of HLA-DR2 Phenotype and Detectable Human Immunodeficiency Virus (HIV) p24 Antigen in HIV-Positive Patients
G. Fabio, M. Marchini, R. Scorza Smeraldi, M. Zarantonello, G. Tarantini, A. Gringeri, and R. Antonioli

500 Ground Beef Consumption in Noncommercial Settings Is a Risk Factor for Sporadic *Escherichia coli* O157:H7 Infection in Canada
Nicole Le Saux, John S. Spika, Brent Friesen, Ian Johnson, David Melnychuck, Cathy Anderson, Réjean Dion, Maks Rahman, and Wally Tostowaryk

502 Persistence of *Chlamydia* Complement-Fixation Antibody after an Outbreak of Psittacosis
Katrina Hedberg, Karen E. White, Craig W. Hedberg, Judith Brandriet, Michael T. Osterholm, and Kristine L. MacDonald

504 Increased Interferon-γ and Neopterin Concentrations in Patients with Acute Brucellosis
A. Diez-Ruiz, M. Al-Amrani, G. Weiss, F. Gutierrez-Gea, H. Wachter, and D. Fuchs

505 Levels of Interleukin-8 in Patients with Adult Respiratory Distress Syndrome
Donato Torre, Claudia Zeroli, Massimo Giola, Giovanni Paolo Fiori, Giulio Minoja, Davide Maraggia, and Maurizio Chiaranda

507 **IDSA Postdoctoral Fellowship Information**

517 **Notices**

Volume 167 • Number 3 *March 1993*

Major Articles

519 Safety and Efficacy of Polyethylene Glycol–Modified Interleukin-2 and Zidovudine in Human Immunodeficiency Virus Type 1 Infection: A Phase I/II Study
Robin Wood, Jose G. Montoya, Smriti K. Kundu, David H. Schwartz, and Thomas C. Merigan

526 A Mutation in Human Immunodeficiency Virus Reverse Transcriptase and Decline in CD4 Lymphocyte Numbers in Long-Term Zidovudine Recipients
Michael J. Kozal, Robert W. Shafer, Mark A. Winters, David A. Katzenstein, and Thomas C. Merigan

533 Augmentation of Human Immunodeficiency Virus Type 1 Neutralizing Antibody by Priming with gp160 Recombinant Vaccinia and Boosting with rgp160 in Vaccinia-Naive Adults
Barney S. Graham, Thomas J. Matthews, Robert B. Belshe, Mary Lou Clements, Raphael Dolin, Peter F. Wright, Geoffrey J. Gorse, David H. Schwartz, Michael C. Keefer, Dani P. Bolognesi, Lawrence Corey, Donald M. Stablein, Joy R. Esterlitz, Shiu-Lok Hu, Gale E. Smith, Patricia E. Fast, Wayne C. Koff, and the NIAID AIDS Vaccine Clinical Trials Network

538 Human Immunodeficiency Virus (HIV) Type 1 Strain MN Neutralizing Antibody in HIV-Infected Children: Correlation with Clinical Status and Prognostic Value
Marjorie Robert-Guroff, Emmanuel Roilides, Rebecca Muldoon, David Venzon, Robert Husson, Dorie Marshall, Robert C. Gallo, and Philip A. Pizzo

547 Esophageal Disease in AIDS Is Associated with Pathologic Processes Rather than Mucosal Human Immunodeficiency Virus Type 1
Phillip D. Smith, Mark S. Eisner, Jody F. Manischewitz, Vee J. Gill, Henry Masur, and Cecil F. Fox

553 A Human Respiratory Syncytial Virus (RSV) Primate Model of Enhanced Pulmonary Pathology Induced with a Formalin-Inactivated RSV Vaccine but Not a Recombinant FG Subunit Vaccine
Thomas J. Kakuk, Kenneth Soike, Roger J. Brideau, Renee M. Zaya, Serena L. Cole, J.-Y. Zhang, E. Donald Roberts, Peter A. Wells, and Michael W. Wathen

562 Antigenic and Nucleic Acid Analysis of Nosocomial Isolates of Respiratory Syncytial Virus
Gregory A. Storch, Caroline B. Hall, Larry J. Anderson, Chung S. Park, and Dennis E. Dohner

567 Vertical Transmission of Hepatitis A Resulting in an Outbreak in a Neonatal Intensive Care Unit
John C. Watson, David W. Fleming, Arline J. Borella, Ellen S. Olcott, Robert E. Conrad, and Roy C. Baron

572 Infrequent Vertical Transmission of Hepatitis C Virus
J. P. H. Lam, F. McOmish, S. M. Burns, P. L. Yap, J. Y. Q. Mok, and P. Simmonds

577 Fecal Antibody Responses to Symptomatic and Asymptomatic Rotavirus Infections
David O. Matson, Miguel L. O'Ryan, Ismael Herrera, Larry K. Pickering, and Mary K. Estes

584 Effect of Age on Cytotoxic T Lymphocyte Memory as well as Serum and Local Antibody Responses Elicited by Inactivated Influenza Virus Vaccine
Douglas C. Powers and Robert B. Belshe

593 Safety and Immunogenicity of a Recombinant Protein Influenza A Vaccine in Adult Human Volunteers and Protective Efficacy against Wild-Type H1N1 Virus Challenge
Louis F. Fries, Susan B. Dillon, James E. K. Hildreth, Ruth A. Karron, Ann W. Funkhouser, Carl J. Friedman, Christopher S. Jones, Vasantha G. Culleton, and Mary Lou Clements

602 Immunologic and Molecular Biologic Studies of Prion Proteins in Bovine Spongiform Encephalopathy
Stanley B. Prusiner, Miklós Füzi, Michael Scott, Dan Serban, Hana Serban, Albert Taraboulos, Jean-Marc Gabriel, Gerald A. H. Wells, John W. Wilesmith, Raymond Bradley, Stephen J. DeArmond, and Krister Kristensson

614 Infection with a Ratborne Hantavirus in US Residents Is Consistently Associated with Hypertensive Renal Disease
Gregory E. Glass, Alan J. Watson, James W. LeDuc, Gabor D. Kelen, Thomas C. Quinn, and James E. Childs

621 The Molecular Epidemiology of Cholera in Latin America
I. Kaye Wachsmuth, Gracia M. Evins, Patricia I. Fields, Ørjan Olsvik, Tanja Popovic, Cheryl A. Bopp, Joy G. Wells, Carlos Carrillo, and Paul A. Blake

627 Pathogen-Specific Risk Factors and Protective Factors for Acute Diarrheal Disease in Urban Brazilian Infants
Paul A. Blake, Sonia R. T. Silva Ramos, Kristine L. MacDonald, Vilma Rassi, Tania A. Tardelli Gomes, Cecile Ivey, Nancy H. Bean, and Luiz R. Trabulsi

633 Fibronectin Is More Active than Fibrin or Fibrinogen in Promoting *Staphylococcus aureus* Adherence to Inserted Intravascular Catheters
Pierre Vaudaux, Didier Pittet, André Haeberli, Peter G. Lerch, Jean-Jacques Morgenthaler, Richard A. Proctor, Francis A. Waldvogel, and Daniel P. Lew

642 In Vitro Model of *Haemophilus ducreyi* Adherence to and Entry into Eukaryotic Cells of Genital Origin
Claudia J. Lammel, Nusi P. Dekker, Joel Palefsky, and Geo. F. Brooks

651 Experimental Lyme Disease in Dogs Produces Arthritis and Persistent Infection
Max J. G. Appel, Sandra Allan, Richard H. Jacobson, Tsai Ling Lauderdale, Yung Fu Chang, Sang J. Shin, John W. Thomford, Rory J. Todhunter, and Brian A. Summers

665 Nonprotein Antigens of *Borrelia burgdorferi*
Christine M. Wheeler, Juan Carlos Garcia Monco, Jorge L. Benach, Marc G. Golightly, Gail S. Habicht, and Allen C. Steere

675 Progression of Hearing Loss in Experimental Pneumococcal Meningitis: Correlation with Cerebrospinal Fluid Cytochemistry
Samir M. Bhatt, Arthur Lauretano, Carmen Cabellos, Chris Halpin, Robert A. Levine, Wen Z. Xu, Joseph B. Nadol, Jr., and Elaine Tuomanen

684 Triggering of Pneumococcal Autolysis by Lysozyme
Philippe Cottagnoud and Alexander Tomasz

691 Toxoplasmosis Acquired during Pregnancy: Improved Serodiagnosis Based on Avidity of IgG
Maija Lappalainen, Pentti Koskela, Marjaleena Koskiniemi, Pirkko Ämmälä Vilho Hiilesmaa, Kari Teramo, Kari O. Raivio, Jack S. Remington, and Klaus Hedman

698 Cytoadherence of *Plasmodium falciparum*–Infected Erythrocytes to Microvascular Endothelium is Regulatable by Cytokines and Phorbol Ester
Jennifer K. Johnson, Robert A. Swerlick, Katharine K. Grady, Pascal Millet, and Timothy M. Wick

704 Intensity of Infection in AIDS-Associated Cryptosporidiosis
Richard W. Goodgame, Robert M. Genta, A. Clinton White, and Cynthia L. Chappell

Concise Communications

710 Prevalence of Human Immunodeficiency Virus Types 1 and 2 Infections in Nigeria
O. D. Olaleye, L. Bernstein, C. C. Ekweozor, Zhijuan Sheng, S. A. Omilabu, Xiu-Yan Li, J. Sullivan-Halley, and S. Rasheed

715 Recombinant Immunoblot Assays for Hepatitis C in Human Immunodeficiency Virus Type 1–Infected US Navy Personnel
Joe P. Bryan, Maria H. Sjogren, Joseph L. Malone, Philip MacArthy, Tzu-Cheg Kao, Kenneth Wagner, Jaqueline Sheffield, Edith Smith, and Peter L. Perine

719 Cytotoxic T Lymphocyte Lines Specific for Human Immunodeficiency Virus Type 1 Gag and Reverse Transcriptase Derived from a Vertically Infected Child
Elizabeth J. McFarland, Tyler J. Curiel, David J. Schoen, Mary E. Rosandich, Robert T. Schooley, and Daniel R. Kuritzkes

723 Comparison between Methods for Human Papillomavirus DNA Testing: A Model for Self-Testing in Young Women
Anna-Barbara Moscicki

726 Sequence Variation in the Large Envelope Glycoprotein (E2/NS1) of the Hepatitis C Virus during Chronic Infection
U. Kumar, J. Brown, J. Monjardino, and H. C. Thomas

731 Adjuvant Effects of Imiquimod on a Herpes Simplex Virus Type 2 Glycoprotein Vaccine in Guinea Pigs
David I. Bernstein, Richard L. Miller, and Christopher J. Harrison

735 Human Herpesvirus-6 (HHV-6) Infection in Allogeneic Bone Marrow Transplant Recipients: Evidence of a Marrow-Suppressive Role for HHV-6 In Vivo
William R. Drobyski, W. Michael Dunne, Eileen M. Burd, Konstance K. Knox, Robert C. Ash, Mary M. Horowitz, Neal Flomenberg, and Donald R. Carrigan

740 Cytomegalovirus Transcripts in Peripheral Blood Leukocytes of Actively Infected Transplant Patients Detected by Reverse Transcription–Polymerase Chain Reaction
Andreas Bitsch, Holger Kirchner, Regina Dupke, and Gregor Bein

744 Parvovirus B19–Specific DNA in Bone Marrow from B19 Arthropathy Patients: Evidence for B19 Virus Persistence
Frank Foto, Kenneth G. Saag, Laura L. Scharosch, Elizabeth J. Howard, and Stanley J. Naides

748 Sequential Administration of Two Human-Rhesus Rotavirus Reassortant Strains of VP7 Serotype 1 and 2 Specificity to Infants and Young Children
Masaaki Kobayashi, Kazuko Araki, Juliette Thompson, Sharon J. Tollefson, and Peter F. Wright

752 Microencapsulated Human Parainfluenza Virus Induces a Protective Immune Response
Ranjit Ray, Miroslav Novak, Jacqueline D. Duncan, Yumiko Matsuoka, and Richard W. Compans

755 Diffuse and Enteroaggregative Patterns of Adherence of Enteric *Escherichia coli* Isolated From Aboriginal Children from the Kimberley Region of Western Australia
Stuart T. Gunzburg, Barbara J. Chang, Simon J. Elliott, Valerie Burke, and Michael Gracey

759 Temporal Variation in Bacterial Disease Frequency: Molecular Population Genetic Analysis of Scarlet Fever Epidemics in Ottawa and Eastern Germany
James M. Musser, Kimberlyn Nelson, Robert K. Selander, Dieter Gerlach, Jay C. Huang, Vivek Kapur, and Sagarika Kanjilal

762 Interferon-γ Levels in Serum and Bronchoalveolar Lavage Fluid of Mice Infected with *Bordetella pertussis*
Donato Torre, Agostino Pugliese, Filippo Speranza, Giovanni Paolo, Lorenza Perversi, Piero Marone, and Roberto Tambini

766 Assessment of Candidate Anticryptosporidial Agents in an Immunosuppressed Rat Model
Denis Lemeteil, Francis Roussel, Loic Favennec, Jean Jacques Ballet, and Philippe Brasseur

769 Induction of Heat-Shock Protein 70 in Neutrophils during Exposure to Subphysiologic Temperatures
Gerard Cox, Pope Moseley, and Gary W. Hunninghake

Correspondence

772 Herpes Simplex Virus Infection as a Risk Factor for Human Immunodeficiency Virus Infection in Heterosexuals
F. M. Cowan, A. M. Johnson, and A. Mindel

772 Human Herpesvirus-6 and Roseola Infantum
David J. Morris

773 Enhancement of Complement-Mediated Killing of *Neisseria gonorrhoeae* by Antibodies to Lipopolysaccharide of *Escherichia coli* J5
Ben J. Appelmelk, Marian Verweij-van Vught, Janneke J. Maaskant, Bert G. Thijs, and David M. Maclaren

774 Reply
Daniel P. McQuillen, Sunita Gulati, and Peter A. Rice

775 β-Lactam Antibiotic-Induced Release of Free Lipopolysaccharide
James C. Hurley

775 Reply
Jesse J. Jackson and Helmut Kropp

777 The In Vivo Effects of Nonoxynol-9 Contraception on Vaginal Microbial Flora and Colonization with *Escherichia coli*
Brian M. Jones and Adrian Eley

777 Reply
Seymour J. Klebanoff

778 Soluble CD2 Levels in Serum during Acute Kawasaki Disease and Infectious Mononucleosis
Susumu Furukawa, Tomoyo Matsubara, Tadashi Obara, Ko Okumura, and Keijiro Yabuta

780 Retreatment with Recombinant Interferon-α in Patients with Chronic Hepatitis C
Patrick Marcellin, Michèle Pouteau, Nathalie Boyer, Corinne Castelnau, Serge Erlinger, and Jean Pierre Benhamou

781 Simultaneous Outbreak of *Salmonella enteritidis* and *Salmonella schwarzengrund* in a Nursing Home: Association of *S. enteritidis* with Bacteremia and Hospitalization
Jean Lin Taylor, Diane M. Dwyer, Carmela Grover, Anne Bailowitz, Duane Tilghman, Victor Kim, Aaron Joseph, and J. Glenn Morris, Jr.

783 Long-Term Follow-Up of Patients with Bacterial Vaginosis Treated with Oral Metronidazole and Topical Clindamycin
J. D. Sobel, C. Schmitt, and C. Meriwether

784 Pharmacokinetics of an IgM Human Monoclonal Antibody against *Pseudomonas aeruginosa* in Nonseptic Patients
Y. Gloria Meng, Teresa Wong, Louis D. Saravolatz, and James E. Pennington

785 Trimethoprim Resistance Arising in Animal Bacteria and Transferring into Human Pathogens
Catarina Jansson, Anders Franklin, and Ola Sköld

788 **Notices and Erratum**

Instructions for Authors

Volume 167 • Supplement 1 *March 1993*

Infectious Diseases Management: Advances in Adjuvant Cytokine Therapy

S1 Introduction
R. Alan B. Ezekowitz

S2 How Cytokines Signal Messages within Cells
Alan A. Aderem

S8 Conventional versus Interferon-γ Therapy in Chronic Granulomatous Disease
John T. Curnutte

S13 The Role of Interferon-γ in the Treatment of Visceral and Diffuse Cutaneous Leishmaniasis
Roberto Badaró and Warren D. Johnson, Jr.

S18 Recent Advances in Cytokine Therapy in Leprosy
Gilla Kaplan

S23 Modulation of Host Defenses with Interferon-γ in Pediatrics
Harry R. Hill

Volume 167 • Number 4 *April 1993*

Major Articles

789 Alcohol Intake Increases Human Immunodeficiency Virus Type 1 Replication in Human Peripheral Blood Mononuclear Cells
Omar Bagasra, Andre Kajdacsy-Balla, Harold W. Lischner, and Roger J. Pomerantz

798 Detection of Human Immunodeficiency Virus Type 1 in Semen: Effects of Disease Stage and Nucleoside Therapy
Kamal A. Hamed, Mark A. Winters, Mark Holodniy, David A. Katzenstein, and Thomas C. Merigan

803 Patients Infected with Human Immunodeficiency Virus Type 1 Have Low Levels of Virus in Saliva Even in the Presence of Periodontal Disease
Stephen C. H. Yeung, Farhad Kazazi, Christine G. M. Randle, Rebecca C. Howard, Nilofar Rizvi, Jean C. Downie, Basil J. Donovan, David A. Cooper, Hiromasa Sekine, Dominic E. Dwyer, and Anthony L. Cunningham

810 Down-Regulation of Human Immunodeficiency Virus Type 1 (HIV-1) Production after Stimulation of Monocyte-Derived Macrophages Infected with HIV-1
Hans S. L. M. Nottet, Loek de Graaf, N. Machiel de Vos, Leendert J. Bakker, Jos A. G. van Strijp, Maarten R. Visser, and Jan Verhoef

818 Study of Human Immunodeficiency Virus Resistance to 2'-3'-Dideoxyinosine and Zidovudine in Sequential Isolates from Pediatric Patients on Long-Term Therapy
Dimitre H. Dimitrov, F. Blaine Hollinger, Carol J. Baker, Mark W. Kline, Marilyn Doyle, James W. Bremer, and William T. Shearer

824 Randomized Placebo-Controlled Double-Blind Combined Therapy with Laser Surgery and Systemic Interferon-α2a in the Treatment of Anogenital Condylomata Acuminatum
The Condylomata International Collaborative Study Group

830 Reversal of the Immunosenescent Phenotype by Dehydroepiandrosterone: Hormone Treatment Provides an Adjuvant Effect on the Immunization of Aged Mice with Recombinant Hepatitis B Surface Antigen
Barbara A. Araneo, Marion L. Woods II, and Raymond A. Daynes

841 Demonstration of *Chlamydia pneumoniae* in Atherosclerotic Lesions of Coronary Arteries
Cho-chou Kuo, Allan Shor, Lee Ann Campbell, Hideto Fukushi, Dorothy L. Patton, and J. Thomas Grayston

850 Penicillin-Resistant *Streptococcus pneumoniae* Strains Recovered in Houston: Identification and Molecular Characterization of Multiple Clones
James Versalovic, Vivek Kapur, Edward O. Mason, Jr., Uma Shah, Thearith Koeuth, James R. Lupski, and James M. Musser

857 Transferrin, Iron, and Serum Lipids Enhance or Inhibit *Mycobacterium avium* Replication in Human Macrophages
George S. Douvas, Mary H. May, and Alfred J. Crowle

865 Human Anti-Endotoxin Antibody HA-1A Mediates Complement-Dependent Binding of *Escherichia coli* J5 Lipopolysaccharide to Complement Receptor Type 1 of Human Erythrocytes and Neutrophils
Jeffrey I. Krieger, Robert C. Fletcher, Scott A. Siegel, Douglas T. Fearon, Donald S. Neblock, Raymond H. Boutin, Ronald P. Taylor, and Peter E. Daddona

876 Protection against Lethal Endotoxemia by Anti–Lipid A Murine Monoclonal Antibodies: Comparison of Efficacy with That of Human Anti–Lipid A Monoclonal Antibody HA-1A
J. J. Cornelissen, I. Mäkel, A. Algra, B. J. Benaissa-Trouw, J. F. P. Schellekens, C. A. Kraaijeveld, and J. Verhoef

882 Tumor Necrosis Factor-α (TNFα) in Cerebrospinal Fluid from Patients with Meningitis of Different Etiologies: High Levels of TNFα Indicate Bacterial Meningitis
Martin Glimåker, Peter Kragsbjerg, Marianne Forsgren, and Per Olcén

890 Degradation of Glycosaminoglycans and Fibronectin on Endotoxin-Stimulated Endothelium by Adherent Neutrophils: Relationship to CD11b/CD18 and L-Selectin Expression
Nigel J. Klein, Michael Levin, Stephen Strobel, and Adam Finn

899 An In Vitro Comparison of the Effects of the Prooxidative Riminophenazines Clofazimine and B669 on Neutrophil Phospholipase A_2 Activity and Superoxide Generation
M. M. Krajewska and R. Anderson

905 Impairment of Neutrophil Antifungal Activity against Hyphae of *Aspergillus fumigatus* in Children Infected with Human Immunodeficiency Virus
Emmanuel Roilides, Andrew Holmes, Cassann Blake, Philip A. Pizzo, and Thomas J. Walsh

912 Resistance of SCID Mice to *Candida albicans* Administered Intravenously or Colonizing the Gut: Role of Polymorphonuclear Leukocytes and Macrophages
Jean Jensen, Thomas Warner, and Edward Balish

920 Surface Antimicrobial Activity of Heparin-Bonded and Antiseptic-Impregnated Vascular Catheters
Leonard A. Mermel, Susan M. Stolz, and Dennis G. Maki

925 T Cell Responsiveness Correlates Differentially with Antibody Isotype Levels in Clinical and Asymptomatic Filariasis
Maria Yazdanbakhsh, William A. Paxton, Yvonne C. M. Kruize, Erliyani Sartono, Agnes Kurniawan, Angelique van het Wout, Murray E. Selkirk, Felix Partono, and Rick M. Maizels

932 Beyond Chloroquine: Implications of Drug Resistance for Evaluating Malaria Therapy Efficacy and Treatment Policy in Africa
Peter B. Bloland, Eve M. Lackritz, Peter N. Kazembe, Joab B. O. Were, Richard Steketee, and Carlos C. Campbell

Concise Communications

938 Heterosexual Transmission as the Most Common Route of Acute Hepatitis B Virus Infection Among Adults in Taiwan—The Importance of Extending Vaccination to Susceptible Adults
Ming-Chih Hou, Jaw-Ching Wu, Benjamin Ing-Tiau Kuo, Wen-Yung Sheng, Trong-Zong Chen, Shou-Dong Lee, and Kwang-Juei Lo

942 Risk of Acquisition of Genital Herpes Simplex Virus Type 2 in Sex Partners of Persons with Genital Herpes: A Prospective Couple Study
Yvonne Bryson, Maryanne Dillon, David I. Bernstein, Justin Radolf, Phil Zakowski, and Eileen Garratty

946 A Common-Source Outbreak of Callitrichid Hepatitis in Captive Tamarins and Marmosets
Richard J. Montali, Charles A. Scanga, Douglas Pernikoff, David R. Wessner, Richard Ward, and Kathryn V. Holmes

950 Detection of Murine Cytomegalovirus Immediate Early 1 Transcripts in the Spleens of Latently Infected Mice
Stanley C. Henry and John D. Hamilton

954 Determination of Human T Lymphotropic Virus Type by Polymerase Chain Reaction and Correlation with Risk Factors in Northern California Blood Donors
Bernard E. Eble, Michael P. Busch, Anne M. Guiltinan, Hassan Khayam-Bashi, and Edward L. Murphy

958 A Cold-Adapted Mutant of Parainfluenza Virus Type 3 Is Attenuated and Protective in Chimpanzees
Susan L. Hall, Christina M. Sarris, Eveline L. Tierney, William T. London, and Brian R. Murphy

962 Reactivity of Antibodies against Conserved Regions of Pilins of *Haemophilus influenzae* Type b
Janet R. Gilsdorf, Larry J. Forney, and Kirk W. McCrea

966 The Immune Response of Children to Meningococcal Lipooligosaccharides during Disseminated Disease Is Directed Primarily against Two Monoclonal Antibody–Defined Epitopes
Michele M. Estabrook, Carol J. Baker, and J. McLeod Griffiss

971 Mode of Inoculation of the Lyme Disease Agent *Borrelia burgdorferi* Influences Infection and Immune Responses in Inbred Strains of Mice
Lise Gern, Ulrich E. Schaible, and Markus M. Simon

975 DNA Fragment Length Polymorphism Analysis of *Mycobacterium tuberculosis* Isolates by Arbitrarily Primed Polymerase Chain Reaction
Prasit Palittapongarnpim, Sylvia Chomyc, Anne Fanning, and Dennis Kunimoto

979 Increase in Activated T Cells and Reduction in Suppressor/Cytotoxic T Cells in Acute Rheumatic Fever and Active Rheumatic Heart Disease: A Longitudinal Study
K. Morris, C. Mohan, P. L. Wahi, I. S. Anand, and N. K. Ganguly

983 Decreased $CD4^+CD29^+$ (Memory T) Cells in Patients with Chronic Granulomatous Disease
Masafumi Hasui, Kazuhiro Hattori, Shoichiro Taniuchi, Urara Kohdera, Atushi Nishikawa, Yo Kinoshita, and Yohnosuke Kobayashi

Correspondence

986 Norwalk Virus Infection among Desert Storm Troops
Kenneth C. Hyams, John D. Malone, Albert Z. Kapikian, Mary K. Estes, Xi Jiang, August L. Bourgeois, Scott Paparello, Richard E. Hawkins, and Kim Y. Green

987 Kaposi's Sarcoma in a Human Immunodeficiency Virus–Negative Patient with Asymptomatic Human T Lymphotropic Virus Type I Infection
Dorothea Zucker-Franklin, Yao Q. Huang, George E. Grusky, and Alvin E. Friedman-Kien

989 False-Positive ELISA for Human Immunodeficiency Virus after Influenza Vaccination
Judith Hsia

990 Localization of Priming Epitope to the C-Terminal Portion of Hepatitis A Virus VP1
Shirley A. Harmon, Bruce Broman, Thomas F. Powdrill, Jeffrey M. Johnston, Ellie Ehrenfeld, and Donald F. Summers

992 Association of Antibody Responses to the 19-kDa Antigen of *Mycobacterium tuberculosis* and the HLA-DQ Locus
Graham H. Bothamley, Geziena M. T. Schreuder, Rene R. P. de Vries, and Juraj Ivanyi

993 Blood Group Antigen Secretion and Gallstone Disease in *Salmonella typhi* Chronic Carrier State
Edmundo Hofmann, José Chianale, Antonio Rollán, Jaime Pereira, Catterine Ferrecio, and Viviana Sotomayor

995 **Notices and Errata**

Instructions for Authors

Volume 167 • Number 5 *May 1993*

IDSA Meeting Presentation

997 Role of Superantigens in Human Disease
Patrick M. Schlievert

Major Articles

1003 Vitamin A, Infectious Disease, and Childhood Mortality: A 2¢ Solution?
Alfred Sommer

1008 Early Viremia and Immune Responses in Vertical Human Immunodeficiency Virus Type 1 Infection
Katherine Luzuriaga, Patricia McQuilken, Ariane Alimenti, Mohan Somasundaran, RuthAnn Hesselton, and John L. Sullivan

1014 Early Identification of Human Immunodeficiency Virus–Infected Asymptomatic Subjects Susceptible to Zidovudine by Quantitative Viral Coculture and Reverse Transcription–Linked Polymerase Chain Reaction
Wei Lu and Jean-Marie Andrieu

1021 Identification of a Type-Specific Protein that Differentiates Serologically between Human T Cell Lymphotropic Virus Types I and II
M. Carrera-Zandomeni, R. Zandomeni, E. N. Esteban, and J. F. Ferrer

1027 Viral Inactivation of Vesicular Stomatitis Virus in Normal Human Serum by Cross-Linked Polyvinylpyrrolidone
Frank A. Highsmith, Matthew Caple, Benjamin Walthall, Edward Shanbrom, and William N. Drohan

1034 Candidate Recombinant Vaccine for Human B19 Parvovirus
Geetha P. Bansal, Jacqueline A. Hatfield, Frances E. Dunn, Andrew A. Kramer, Francine Brady, Charles H. Riggin, Marc S. Collett, Kohji Yoshimoto, Sachiko Kajigaya, and Neal S. Young

1045 Induction and Enhancement of Immune Responses to Herpes Simplex Virus Type 2 in Humans by Use of a Recombinant Glycoprotein D Vaccine
Stephen E. Straus, Barbara Savarese, Michael Tigges, Alison G. Freifeld, Philip R. Krause, David M. Margolis, Jeffrey L. Meier, David P. Paar, Suzanne F. Adair, Dino Dina, Cornelia Dekker, and Rae Lyn Burke

1053 Outbreak of Japanese Encephalitis on the Island of Saipan, 1990
W. S. Paul, P. S. Moore, N. Karabatsos, S. P. Flood, S. Yamada, T. Jackson, and T. F. Tsai

1059 Death after Pichinde Virus Infection in Large and Small Strain 13 Guinea Pigs
Richard C. Schaeffer, Jr., and Michael S. Bitrick, Jr.

1065 The 5C Protein of *Neisseria meningitidis* Is Highly Immunogenic in Humans and Induces Bactericidal Antibodies
Einar Rosenqvist, E. Arne Høiby, Elisabeth Wedege, Barica Kusecek, and Mark Achtman

1074 Invasion of Human Skin Fibroblasts by the Lyme Disease Spirochete, *Borrelia burgdorferi*
Mark S. Klempner, Richard Noring, and Rick A. Rogers

1082 Dynamics of *Borrelia burgdorferi* Transmission by Nymphal *Ixodes dammini* Ticks
Joseph Piesman

1086 Induction of Interleukin-1 Release by High- and Low-Passage Isolates of *Borrelia burgdorferi*
K. B. Kenefick, L. C. L. Lim, J. D. Alder, J. L. Schmitz, C. J. Czuprynski, and R. F. Schell

1093 Clinical and Serologic Evaluation of Neonates for Congenital Syphilis. A Continuing Diagnostic Dilemma
Barbara J. Stoll, Francis K. Lee, Sandra Larsen, Ellen Hale, David Schwartz, Roselyn J. Rice, Rachel Ashby, Rebecca Holmes, and Andre J. Nahmias

1100 VDRL Antibodies Enhance Phagocytosis of *Treponema pallidum* by Macrophages
Sharon A. Baker-Zander, Jeanne M. Shaffer, and Sheila A. Lukehart

1106 Multistrain Outbreak of Chancroid in San Francisco, 1989–1991
Jennifer M. Flood, Samuel K. Sarafian, Gail A. Bolan, Claudia Lammel, Joseph Engelman, Ruth M. Greenblatt, Geo. F. Brooks, Arthur Back, and Stephen A. Morse

1112 Molecular Epidemiology of Group A Streptococcus M Type 1 Infections
Diana R. Martin and Leigh A. Single

1118 Prevention of Group B Streptococcal Colonization and Bacteremia in Neonatal Mice with Topical Vaginal Inhibitors
Frederick Cox, Luann Taylor, Elizabeth K. Eskew, and Stephen J. Mattingly

1123 Inhibition of Platelet Binding and Aggregation by Streptococcal Exopolysaccharide
Paul M. Sullam, J. William Costerton, Ryohei Yamasaki, Paul F. Dazin, and John Mills

1131 Ethanol Impairs Neutrophil Chemotaxis In Vitro but Not Adherence or Recruitment to Lungs of Rats with Experimental Pneumococcal Pneumonia
Philip D. Lister, Martha J. Gentry, and Laurel C. Preheim

1138 *Legionella pneumophila* Replicates within Rat Alveolar Epithelial Cells
Christopher H. Mody, Robert Paine III, M. Shamsi Shahrabadi, Richard H. Simon, Eric Pearlman, Barry I. Eisenstein, and Galen B. Toews

1146 Attachment and Entry of *Legionella pneumophila* in *Hartmannella vermiformis*
Barry S. Fields, Suzanne R. Utley Fields, Janine N. Chin Loy, Elizabeth H. White, W. L. Steffens, and Emmett B. Shotts

1151 Inhibition of Lipid A– and Lipopolysaccharide-Induced Cytokine Secretion, B Cell Mitogenesis, and Lethal Shock by Lipid A–Specific Murine Monoclonal Antibodies
Rangappa N. Ramachandra, Anna Berczi, Alec H. Sehon, and Istvan Berczi

1160 The Major Secreted Antigen Complex (Ag 85) from *Mycobacterium bovis* Bacille Calmette-Guérin Is Associated with Protective T Cells in Leprosy: A Follow-Up Study on 45 Household Contacts
Pascal Launois, M'Bayame N'Diaye Niang, Jacqueline De Bruyn, Jean-Louis Sarthou, François Rivier, Annie Drowart, Jean-Paul Van Vooren, Jacques Millan, and Kris Huygen

1168 Induction of Tumor Necrosis Factor-α in Murine *Candida albicans* Infection
R. Allendoerfer, D. M. Magee, J. G. Smith, L. Bonewald, and J. R. Graybill

1173 Response to Treatment for an Intracellular Infection in a T Cell–Deficient Host: Toxoplasmosis in Nude Mice
Henry W. Murray, Rachel Teitelbaum, and June Hariprashad

1178 Heterogeneity in Filarial-Specific Immune Responsiveness among Patients with Lymphatic Obstruction
Patrick J. Lammie, David G. Addiss, George Leonard, Allen W. Hightower, and Mark L. Eberhard

Concise Communications

1184 Concurrent Use of Ganciclovir and Foscarnet to Treat Cytomegalovirus Infection in AIDS Patients
Douglas T. Dieterich, Michael A. Poles, Edward A. Lew, Paul E. Mendez, Robert Murphy, Adrienne Addessi, Janet T. Holbrook, Katie Naughton, and Dorothy N. Friedberg

1189 Anti-gp160 IgG and IgA Antibodies Associated with a Large Increase in Total IgG in Cervicovaginal Secretions from Human Immunodeficiency Virus Type 1–Infected Women
Xu-Sheng Lu, Laurent Bélec, and Jacques Pillot

1193 Acid Dissociation of Immune Complexes Improves Diagnostic Utility of p24 Antigen Detection in Perinatally Acquired Human Immunodeficiency Virus Infection
Thomas C. Quinn, Richard Kline, Mark W. Moss, Robert A. Livingston, and Nancy Hutton

1197 Association of Human Herpesvirus 6 Infection of the Central Nervous System with Recurrence of Febrile Convulsions
Kazuhiro Kondo, Hiroshi Nagafuji, Atsuko Hata, Chieri Tomomori, and Koichi Yamanishi

1201 Coxsackievirus B2 Infection and Aseptic Meningitis: A Focal Outbreak among Members of a High School Football Team
James P. Alexander, Louisa E. Chapman, Mark A. Pallansch, William T. Stephenson, Thomas J. Török, and Larry J. Anderson

1206 Humoral Immune Response of Humans to Lipooligosaccharide and Outer Membrane Proteins of *Haemophilus ducreyi*
Michelle J. Alfa, Nancy Olson, Pat Degagne, Frank Plummer, Warren Namaara, Ian Maclean, and Allan R. Ronald

1210 Immunogenicity of *Haemophilus influenzae* Type b Conjugate Vaccine in Children with Congenital Asplenia
Steven A. Webber, George G. S. Sandor, Michael W. H. Patterson, Leslie A. Mitchell, David Scheifele, Jan J. Ochnio, and Patrick H. McVerry

1212 Decline in Meningococcal Antibody Levels in African Children 5 Years after Vaccination and the Lack of an Effect of Booster Immunization
Serign J. Ceesay, Stephen J. Allen, Arun Menon, James E. Todd, Kabir Cham, George M. Carlone, Susan H. Turner, Linda L. Gheesling, Wallis DeWitt, Brian D. Plikaytis, and Brian Greenwood

1216 Ribotyping of *Pseudomonas aeruginosa* Strains Isolated from Surgical Intensive Care Patients
Eva Gruner, Andrea Kropec, Johannes Huebner, Martin Altwegg, and Franz Daschner

1220 The *vanB* Gene Confers Various Levels of Self-Transferable Resistance to Vancomycin in Enterococci
Richard Quintiliani, Jr., Stefan Evers, and Patrice Courvalin

1224 In Vivo Development of Teicoplanin Resistance in a VanB *Enterococcus faecium* Isolate
M. K. Hayden, G. M. Trenholme, J. E. Schultz, and D. F. Sahm

1228 Typhoid Fever at a Resort Hotel in New York: A Large Outbreak with an Unusual Vehicle
Guthrie S. Birkhead, Dale L. Morse, William C. Levine, John K. Fudala, Stanley F. Kondracki, Hwa-Gan Chang, Mehdi Shayegani, Lloyd Novick, and Paul A. Blake

1232 Direct Inoculation of Food as the Cause of an Outbreak of Group A Streptococcal Pharyngitis
Thomas A. Farley, Susan A. Wilson, Frank Mahoney, Karen Y. Kelso, Dwight R. Johnson, and Edward L. Kaplan

1236 Disparity of *Borrelia burgdorferi* Infection Rates of Adult *Ixodes dammini* on Deer and Vegetation
Eleanor Lacombe, Peter W. Rand, and Robert P. Smith, Jr.

1239 Postexposure Prophylaxis against Experimental Inhalation Anthrax
Arthur M. Friedlander, Susan L. Welkos, Margaret L. M. Pitt, John W. Ezzell, Patricia L. Worsham, Kenneth J. Rose, Bruce E. Ivins, John R. Lowe, Gerald B. Howe, Perry Mikesell, and Wade B. Lawrence

1243 Geographic Variation in the Humoral Response to *Pneumocystis carinii*
A. G. Smulian, D. W. Sullivan, M. J. Linke, N. A. Halsey, T. C. Quinn, A. P. MacPhail, M. A. Hernandez-Avila, S. T. Hong, and P. D. Walzer

1247 Secular Trends in the Epidemiology of Nosocomial Fungal Infections in the United States, 1980–1990
Consuelo M. Beck-Sagué, William R. Jarvis, and the National Nosocomial Infections Surveillance System

1252 Increased Exposure to Cryptosporidia among Dairy Farmers in Wisconsin
Eugene J. Lengerich, David G. Addiss, James J. Marx, Beth L. P. Ungar, and Dennis D. Juranek

Correspondence

1256 Human Immunodeficiency Virus Transmission and Oral Contraceptives
Alfredo Nicolosi

1257 Reply
Pierre J. Plourde, Allan R. Ronald, and Francis A. Plummer

1258 Fever and Infection in the Age since Wunderlich
Mary Ann Carmack and Charles G. Prober

1259 Reply
Philip A. Mackowiak, Steven S. Wasserman, and Myron M. Levine

1259 Racial Differences in Serum β_2-Microglobulin in Persons with Human Immunodeficiency Virus Infection
Daniel R. Lucey, William F. McCarthy, Stephen P. Blatt, Gregory P. Melcher, and Craig W. Hendrix

1261 Gastrointestinal Carriage of *Listeria monocytogenes* in Household Contacts of Patients with Listeriosis
Anne Schuchat, Katherine Deaver, Peggy S. Hayes, Lewis Graves, Laurene Mascola, and Jay D. Wenger

1262 Bactericidal Activity of Human Sera against a Brazilian Purpuric Fever (BPF) Strain of *Haemophilis influenzae* Biogroup aegyptius Correlates with Age-Related Occurrence of BPF
Lorry G. Rubin, Vicki B. Peters, and Maria C. C. Ferez

1265 **1993 IDSA Meeting Information**

1266 **Notice**

Instructions for Authors

Volume 167 • Number 6 *June 1993*

Major Articles

1267 Epitope Specificity, Antibody-Dependent Cellular Cytotoxicity, and Neutralizing Activity of Antibodies to Human Immunodeficiency Virus Type 1 in Autoimmune MRL/*lpr* Mice
Valter Lombardi, Roberta Placido, Gabriella Scarlatti, M. Luisa Romiti, Maurizio Mattei, Francesca Mariani, Fabrizio Poccia, Paolo Rossi, and Vittorio Colizzi

1274 Human Herpesvirus 6 Inhibits the Proliferative Responses of Human Peripheral Blood Mononuclear Cells
Rebecca T. Horvat, Michael J. Parmely, and Bala Chandran

1281 Effects of Morphine Dependence on the Pathogenesis of Swine Herpesvirus Infection
Jack M. Risdahl, Phillip K. Peterson, Chun C. Chao, Carlos Pijoan, and Thomas W. Molitor

1288 Demonstration of Developmental Anomalies in Mouse Fetuses by Transfer of Murine Cytomegalovirus DNA–Injected Eggs to Surrogate Mothers
John F. Baskar, Beth Furnari, and Eng-Shang Huang

1296 Patterns and Prevalence of Hepatitis C Virus Infection in Posttransfusion Non-A, Non-B Hepatitis
Alfred M. Prince, Betsy Brotman, Genevieve Inchauspé, Donna Pascual, Marc Nasoff, Barbara Hosein, and Chang Yi Wang

1302 Variation in Course of Hepatitis E in Experimentally Infected Cynomolgus Monkeys
Sergei A. Tsarev, Suzanne U. Emerson, Tatiana S. Tsareva, Patrice O. Yarbough, Marianne Lewis, Sugantha Govindarajan, Gregory R. Reyes, Max Shapiro, and Robert H. Purcell

1307 Adenovirus Type 8 Epidemic Keratoconjunctivitis in an Eye Clinic: Risk Factors and Control
John A. Jernigan, Barbara S. Lowry, Frederick G. Hayden, Shirley A. Kyger, Brian P. Conway, Dieter H. M. Gröschel, and Barry M. Farr

1314 Cross-Reacting Serum Opsonins to Meningococci after Vaccination
Hilde-Kari Guttormsen, Robert Bjerknes, Alfred Halstensen, Are Næss, E. Arne Høiby, and Claus Ola Solberg

1320 Antigenic and Epidemiologic Properties of the ET-37 Complex of *Neisseria meningitidis*
Jian-Fu Wang, Dominique A. Caugant, Giovanna Morelli, Brehima Koumaré, and Mark Achtman

1330 An Outbreak of Cholera in Maryland Associated with Imported Commercial Frozen Fresh Coconut Milk
Jean Lin Taylor, Jessica Tuttle, Thana Pramukul, Kevin O'Brien, Timothy J. Barrett, Beverly Jolbitado, Y. L. Lim, Duc Vugia, J. Glenn Morris, Jr., Robert V. Tauxe, and Diane M. Dwyer

1336 Effect of Antibiotic Class and Concentration on the Release of Lipopolysaccharide from *Escherichia coli*
Martin E. Evans and Matthew Pollack

1344 Detection of Tumor Necrosis Factor Soluble Receptor p55 in Blood Samples from Healthy and Endotoxemic Humans
Leland Shapiro, Burton D. Clark, Scott F. Orencole, Debra D. Poutsiaka, Eric V. Granowitz, and Charles A. Dinarello

1351 Competition between Bactericidal/Permeability-Increasing Protein and Lipopolysaccharide-Binding Protein for Lipopolysaccharide Binding to Monocytes
Didier Heumann, Philippe Gallay, Sally Betz-Corradin, Catherine Barras, Jean-Daniel Baumgartner, and Michel Pierre Glauser

1358 Nitric Oxide Synthase Is Not a Constituent of the Antimicrobial Armature of Human Mononuclear Phagocytes
Markus Schneemann, Gabriele Schoedon, Simone Hofer, Nenad Blau, Lourdes Guerrero, and Andreas Schaffner

1364 *Listeria monocytogenes*-Induced Interferon-γ Primes the Host for Production of Tumor Necrosis Factor and Interferon-α/β
Edward A. Havell

1372 Cross-Reactivity between *Borrelia burgdorferi* Flagellin and a Human Axonal 67,000 Molecular Weight Protein
Leonard H. Sigal

1379 Cell-Mediated Immune Response to the Recombinant 57-kDa Heat-Shock Protein of *Chlamydia trachomatis* in Women with Salpingitis
Steven S. Witkin, Jan Jeremias, Miklos Toth, and William J. Ledger

1384 Genetic Diversity among Strains of *Mycobacterium avium* Causing Monoclonal and Polyclonal Bacteremia in Patients with AIDS
Robert D. Arbeit, Alex Slutsky, Thomas W. Barber, Joel N. Maslow, Sandra Niemczyk, Joseph O. Falkinham III, Gerald T. O'Connor, and C. Fordham von Reyn

1391 Endemic Giardiasis in New Hampshire: A Case-Control Study of Environmental Risks
David T. Dennis, Robert P. Smith, Joyce J. Welch, Christopher G. Chute, Barbara Anderson, Joy L. Herndon, and C. Fordham von Reyn

1396 Kinetics of Serum and Cellular Interleukin-5 in Posttreatment Eosinophilia of Patients with Lymphatic Filariasis
Ajit P. Limaye, Eric A. Ottesen, V. Kumaraswami, John S. Abrams, Jaya Regunathan, V. Vijayasekaran, Kunthala Jayaraman, and Thomas B. Nutman

1401 Penicillin-Binding Protein Expression at Different Growth Stages Determines Penicillin Efficacy In Vitro and In Vivo: An Explanation for the Inoculum Effect
Dennis L. Stevens, Sizhuang Yan, and Amy E. Bryant

Concise Communications

1406 Depressed Neutrophil Superoxide Production in Human Immunodeficiency Virus Infection
David L. Pitrak, Philip M. Bak, Patricia DeMarais, Richard M. Novak, and Burton R. Andersen

1411 Molecular Investigation of Human Immunodeficiency Virus (HIV) Infection in a Patient of an HIV-Infected Surgeon
Edward C. Holmes, Lin Qi Zhang, Peter Simmonds, Audrey Smith Rogers, and Andrew J. Leigh Brown

1414 Human Immunodeficiency Virus Infection among High-Risk Seronegative Prostitutes in Nairobi
Dennis M. Willerford, Job J. Bwayo, Michelle Hensel, Wilfred Emonyi, Francis A. Plummer, Elizabeth N. Ngugi, Nico Nagelkerke, W. Michael Gallatin, and Joan Kreiss

1418 Immunogenicity of High-Titer Edmonston-Zagreb Measles Vaccine in Human Immunodeficiency Virus–Infected Children in Kinshasa, Zaire
F. T. Cutts, K. Mandala, M. St. Louis, C. Brown, B. Mayala, E. R. Zell, A. Deforest, M. Kamenga, F. Davachi, and L. E. Markowitz

1422 Salvage Trial of Trimetrexate-Leucovorin for the Treatment of Cerebral Toxoplasmosis in Patients with AIDS
Henry Masur, Michael A. Polis, Carmelita U. Tuazon, Debbie Ogata-Arakaki, Joseph A. Kovacs, David Katz, Dana Hilt, Thayer Simmons, Irwin Feuerstein, Bettina Lundgren, H. Clifford Lane, Bruce A. Chabner, and Carmen J. Allegra

1427 Immunohistochemical Detection of Viral Antigens in Smooth Muscle, Stromal, and Epithelial Cells from Acute Human Cytomegalovirus Gastritis
C. Sinzger, B. Plachter, S. Stenglein, and G. Jahn

1433 Neonatal Screening for Congenital Cytomegalovirus Infection by Detection of Virus in Saliva
Kytia B. Balcarek, William Warren, Richard J. Smith, Martha D. Lyon, and Robert F. Pass

1436 Rotavirus-Specific Humoral and Cellular Immune Response after Primary, Symptomatic Infection
Paul A. Offit, Edward J. Hoffenberg, Norma Santos, and Vera Gouvea

1441 Molecular Epidemiology of a Parainfluenza Type 3 Virus Outbreak on a Pediatric Ward
Ruth A. Karron, Katherine L. O'Brien, Jean L. Froehlich, and Virginia A. Brown

1446 Safety and Immunogenicity of the Oral, Whole Cell/Recombinant B Subunit Cholera Vaccine in North American Volunteers
Jose L. Sanchez, Andrew F. Trofa, David N. Taylor, Robert A. Kuschner, Robert F. DeFraites, Stephen C. Craig, M. Raghava Rao, John D. Clemens, Ann-Mari Svennerholm, Jerald C. Sadoff, and Jan Holmgren

1449 Relationship between Humoral Immune Responses and Oral Temperature during Human Shigellosis
Philip A. Mackowiak, Steven S. Wasserman, and Myron M. Levine

1452 A Large Outbreak of Gastroenteritis Caused by Diarrheal Toxin–Producing *Bacillus cereus*
Stephen Luby, Jeffrey Jones, Harold Dowda, John Kramer, and John Horan

1456 Involvement of Interferon-γ and Tumor Necrosis Factor-α in Host Defense against *Rhodococcus equi*
Patrice Nordmann, Esthel Ronco, and Moncef Guenounou

1459 Clofazimine as Prophylaxis for Disseminated *Mycobacterium avium* Complex Infection in AIDS
Donald I. Abrams, Thomas F. Mitchell, Carroll C. Child, Stephen C. Shiboski, Carol L. Brosgart, Martin M. Mass, and the Community Consortium

1464 Interleukin-8 Release in Baboon Septicemia Is Partially Dependent on Tumor Necrosis Factor
Heinz Redl, Günther Schlag, Miroslav Ceska, James Davies, and Wim A. Buurman

1467 Interferon-γ Protects Endothelial Cells from Damage by *Candida albicans*
Ashraf S. Ibrahim, Scott G. Filler, Mahmoud A. Ghannoum, and John E. Edwards, Jr.

1470 An Improved Method for the Prolonged Maintenance of *Pneumocystis carinii* In Vitro
Pavel Mirovsky and Jay A. Fishman

1474 *Ancylostoma* Factor Xa Inhibitor: Partial Purification and Its Identification as a Major Hookworm-Derived Anticoagulant In Vitro
Michael Cappello, Lionel P. Clyne, Peter McPhedran, and Peter J. Hotez

1477 Interaction of Lectins with *Cryptosporidium parvum*
Jose Llovo, Adolfo Lopez, Jaime Fabregas, and Angeles Muñoz

Review Article

1481 T Cell Response to *Mycobacterium tuberculosis*
Ian M. Orme, Peter Andersen, and W. Henry Boom

Correspondence

1498 Use of the Human Immunodeficiency Virus Virion as a Universal Standard for Viral RNA Quantitation by Reverse Transcription–Linked Polymerase Chain Reaction
Wei Lu and Jean-Marie Andrieu

1499 Antibodies to Rubella and Human Herpesvirus 6 in Diverse Retinal Diseases
Conall Mc Caughey, Paula Gormley, John H. Connolly, Desmond B. Archer, and Peter V. Coyle

1500 Quaternary Amine (Protamine Sulfate) Is Bactericidal to *Staphylococcus epidermidis*
Joel M. H. Teichman, Paul C. Stein, and C. Lowell Parsons

1501 Salicylic Acid Decreases Extracellular Biofilm Production by *Staphylococcus epidermidis*: Electron Microscopic Analysis
Saul Teichberg, Bruce F. Farber, Arlene G. Wolff, and Beth Roberts

1503 EIA for Detection of *Rochalimaea henselae*–Reactive IgG, IgM, and IgA Antibodies in Patients with Suspected Cat-Scratch Disease
Noori E. Barka, Ted Hadfield, Madhumita Patnaik, William A. Schwartzman, and James B. Peter

1505 A Ribosomal Gene Mutation in Streptomycin-Resistant *Mycobacterium tuberculosis* Isolates
John Douglass and Lafras M. Steyn

1506 **Notices and Books Received**

1507 **Reviewers of Volume 167**

1510 **Index to Volume 167**

Instructions for Authors

Volume Contents